



$$\sin \langle (m_1 - m_2), M \rangle \approx \sin(-120^\circ) \approx -\sqrt{3}/2. \quad \text{negative}$$

$$\sin \langle (m_1 - m_2), R \rangle \approx \sin(-60^\circ) \approx -\sqrt{3}/2. \quad \text{this should be the bound state}$$